

## Section 1. Registration Information

### Source Identification

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|                         |               |
|-------------------------|---------------|
| Facility Name:          | Clearon Corp. |
| Parent Company #1 Name: | EuroClearon   |
| Parent Company #2 Name: |               |

### Submission and Acceptance

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|   |                                     |
|---|-------------------------------------|
| Submission Type:                            | Correction or administrative change |
| Subsequent RMP Submission Reason:           | New data element required by EPA    |
| Description:                                |                                     |
| Receipt Date:                               | 26-Jul-2004                         |
| Postmark Date:                              | 23-Jul-2004                         |
| Next Due Date:                              | 14-Jun-2009                         |
| Completeness Check Date:                    | 02-Sep-2004                         |
| Complete RMP:                               | Yes                                 |
| De-Registration / Closed Reason:            |                                     |
| De-Registration / Closed Reason Other Text: |                                     |
| De-Registered / Closed Date:                |                                     |
| De-Registered / Closed Effective Date:      |                                     |
| Certification Received:                     | Yes                                 |

### Facility Identification

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|                                |                 |
|--------------------------------|-----------------|
| EPA Facility Identifier:       | 1000 0005 3014  |
| Other EPA Systems Facility ID: | 25303LNCRP95MAC |
| Facility Registry System ID:   |                 |

### Dun and Bradstreet Numbers (DUNS)

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|                         |           |
|-------------------------|-----------|
| Facility DUNS:          | 928869098 |
| Parent Company #1 DUNS: |           |
| Parent Company #2 DUNS: |           |

### Facility Location Address

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|           |                       |
|-----------|-----------------------|
| Street 1: | 95 MacCorkle Ave., SW |
| Street 2: |                       |
| City:     | South Charleston      |
| State:    | WEST VIRGINIA         |
| ZIP:      | 25303                 |
| ZIP4:     |                       |
| County:   | KANAWHA               |

### Facility Latitude and Longitude

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|                                  |                              |
|----------------------------------|------------------------------|
| Latitude (decimal):              | 38.366800                    |
| Longitude (decimal):             | -081.706071                  |
| Lat/Long Method:                 | Interpolation - Photo        |
| Lat/Long Description:            | Center of Facility           |
| Horizontal Accuracy Measure:     | 25                           |
| Horizontal Reference Datum Name: | North American Datum of 1983 |
| Source Map Scale Number:         | 24000                        |

## Owner or Operator

Operator Name: Clearon Corp.  
Operator Phone: (b) (6)

## Mailing Address

Operator Street 1: 95 MacCorkle Ave., SW  
Operator Street 2:  
Operator City: South Charleston  
Operator State: WEST VIRGINIA  
Operator ZIP: 25303  
Operator ZIP4:  
Operator Foreign State or Province:  
Operator Foreign ZIP:  
Operator Foreign Country:

## Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person: (b) (6)  
RMP Title of Person or Position: (b) (6)  
RMP E-mail Address: (b) (6)

## Emergency Contact

Emergency Contact Name: (b) (6)  
Emergency Contact Title: (b) (6)  
Emergency Contact Phone: (b) (6)  
Emergency Contact 24-Hour Phone: (b) (6)  
Emergency Contact Ext. or PIN:  
Emergency Contact E-mail Address: (b) (6)

## Other Points of Contact

Facility or Parent Company E-mail Address:  
Facility Public Contact Phone: (b) (6)  
Facility or Parent Company WWW Homepage Address: www.clearon.com

## Local Emergency Planning Committee

LEPC: Kanawha Putnam LEPC

## Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site: 109  
FTE Claimed as CBI:

## Covered By

OSHA PSM : Yes  
EPCRA 302 : Yes  
CAA Title V: Yes

Air Operating Permit ID:

R30039000112002

## OSHA Ranking

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OSHA Star or Merit Ranking:

## Last Safety Inspection

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Last Safety Inspection (By an External Agency)

02-Sep-2003

Date:

Last Safety Inspection Performed By an External Agency:

State environmental agency

## Predictive Filing

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Did this RMP involve predictive filing?:

## Preparer Information

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Preparer Name:

Preparer Phone:

Preparer Street 1:

Preparer Street 2:

Preparer City:

Preparer State:

Preparer ZIP:

Preparer ZIP4:

Preparer Foreign State:

Preparer Foreign Country:

Preparer Foreign ZIP:

## Confidential Business Information (CBI)

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CBI Claimed:

Substantiation Provided:

Unsanitized RMP Provided:

## Reportable Accidents

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Reportable Accidents:

See Section 6. Accident History below to determine if there were any accidents reported for this RMP.

## Process Chemicals

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Process ID:

56933

Description:

Process Chemical ID:

75204

Program Level:

Program Level 3 process

Chemical Name:

Chlorine

CAS Number:

7782-50-5

Quantity (lbs):

720000

CBI Claimed:

Flammable/Toxic:

Toxic

## Process NAICS

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|                    |  |
|--------------------|--|
| Process ID:        | 56933  |
| Process NAICS ID:  | 58254  |
| Program Level:     | Program Level 3 process                          |
| NAICS Code:        | 325188   |
| NAICS Description: | All Other Basic Inorganic Chemical Manufacturing |

Section 2. Toxics: Worst Case

Toxic Worst ID: 37488

|                              |  |
|------------------------------|--|
| Percent Weight:              |  |
| Physical State:              | Gas liquified by pressure                        |
| Model Used:                  | EPA's OCA Guidance Reference Tables or Equations |
| Release Duration (mins):     | 10   |
| Wind Speed (m/sec):          | 1.5  |
| Atmospheric Stability Class: | F  |
| Topography:                  | Urban  |

Passive Mitigation Considered

- Dikes:
- Enclosures:
- Berms:
- Drains:
- Sumps:
- Other Type:

Section 3. Toxics: Alternative Release

Toxic Alter ID: 44208

|                              |  |
|------------------------------|--|
| Percent Weight:              |  |
| Physical State:              | Gas  |
| Model Used:                  | EPA's OCA Guidance Reference Tables or Equations |
| Wind Speed (m/sec):          | 3.0  |
| Atmospheric Stability Class: | D  |
| Topography:                  | Urban  |

Passive Mitigation Considered

- Dikes:
- Enclosures:
- Berms:
- Drains:
- Sumps:
- Other Type:

Active Mitigation Considered

|                     |   |
|---------------------|---|
| Sprinkler System:   |   |
| Deluge System:      |   |
| Water Curtain:      | Yes   |
| Neutralization:     |   |
| Excess Flow Valve:  | Yes   |
| Flares:             |   |
| Scrubbers:          |   |
| Emergency Shutdown: | Yes   |
| Other Type:         | Chlorine area detectors, surveillance cameras, continuous area monitoring |

## **Section 4. Flammables: Worst Case**

No records found.

## **Section 5. Flammables: Alternative Release**

No records found.

## Section 6. Accident History

No records found.

## Section 7. Program Level 3

### Description

This process includes all of the equipment in those sections of the Chlorination Unit in which highly hazardous chemicals are processed. The Chlorination Unit operation include chlorine and hydrochloric acid unloading, trichloroisocyanuric acid and dichloroisocyanuric acid chlorination, filtrate treatment and chlorine recovery, waste treatment and cyanuric acid recovery, and chlorine venting and scrubbing.

### Program Level 3 Prevention Program Chemicals

|                                 |           |
|---------------------------------|-----------|
| Prevention Program Chemical ID: | 47632     |
| Chemical Name:                  | Chlorine  |
| Flammable/Toxic:                | Toxic     |
| CAS Number:                     | 7782-50-5 |

|                                |        |
|--------------------------------|--------|
| Process ID:                    | 56933  |
| Description:                   |        |
| Prevention Program Level 3 ID: | 32763  |
| NAICS Code:                    | 325188 |

### Safety Information

|   |             |
|---|-------------|
| Safety Review Date (The date on which the safety information was last reviewed or revised): | 10-May-1999 |
|---|-------------|

### Process Hazard Analysis (PHA)

|   |             |
|---|-------------|
| PHA Completion Date (Date of last PHA or PHA update): | 10-Jan-2002 |
|---|-------------|

### The Technique Used

|  |     |
|--|-----|
| What If:   |     |
| Checklist:   |     |
| What If/Checklist:   | Yes |
| HAZOP:   | Yes |
| Failure Mode and Effects Analysis:   | Yes |
| Fault Tree Analysis:   |     |
| Other Technique Used:  |     |
| PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update): |     |

### Major Hazards Identified

|                     |     |
|---------------------|-----|
| Toxic Release:      | Yes |
| Fire:               |     |
| Explosion:          | Yes |
| Runaway Reaction:   | Yes |
| Polymerization:     |     |
| Overpressurization: | Yes |
| Corrosion:          | Yes |
| Overfilling:        |     |

|  |     |
|--|-----|
| Contamination:   | Yes |
| Equipment Failure:                                     | Yes |
| Loss of Cooling, Heating, Electricity, Instrument Air: | Yes |
| Earthquake:  |     |
| Floods (Flood Plain):                                  |     |
| Tornado:   |     |
| Hurricanes:  |     |
| Other Major Hazard Identified:                         |     |

## Process Controls in Use

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|                               |     |
|-------------------------------|-----|
| Vents:                        | Yes |
| Relief Valves:                | Yes |
| Check Valves:                 | Yes |
| Scrubbers:                    | Yes |
| Flares:                       |     |
| Manual Shutoffs:              | Yes |
| Automatic Shutoffs:           | Yes |
| Interlocks:                   | Yes |
| Alarms and Procedures:        | Yes |
| Keyed Bypass:                 |     |
| Emergency Air Supply:         | Yes |
| Emergency Power:              | Yes |
| Backup Pump:                  | Yes |
| Grounding Equipment:          | Yes |
| Inhibitor Addition:           |     |
| Rupture Disks:                | Yes |
| Excess Flow Device:           | Yes |
| Quench System:                |     |
| Purge System:                 | Yes |
| None:                         |     |
| Other Process Control in Use: |     |

## Mitigation Systems in Use

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|                                 |     |
|---------------------------------|-----|
| Sprinkler System:               |     |
| Dikes:                          |     |
| Fire Walls:                     |     |
| Blast Walls:                    |     |
| Deluge System:                  | Yes |
| Water Curtain:                  | Yes |
| Enclosure:                      |     |
| Neutralization:                 |     |
| None:                           |     |
| Other Mitigation System in Use: |     |

## Monitoring/Detection Systems in Use

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|   |     |
|---|-----|
| Process Area Detectors:                   | Yes |
| Perimeter Monitors:                       | Yes |
| None:                                     |     |
| Other Monitoring/Detection System in Use: |     |

## Changes Since Last PHA Update

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Reduction in Chemical Inventory:  
Increase in Chemical Inventory:  
Change Process Parameters: Yes  
Installation of Process Controls: Yes  
Installation of Process Detection Systems: Yes  
Installation of Perimeter Monitoring Systems:  
Installation of Mitigation Systems: Yes  
None Recommended:  
None:  
Other Changes Since Last PHA or PHA Update:

## Review of Operating Procedures

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Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures): 15-Jul-2003

## Training

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Training Revision Date (The date of the most recent review or revision of training programs): 12-Dec-2002

## The Type of Training Provided

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Classroom: Yes  
On the Job: Yes  
Other Training:

## The Type of Competency Testing Used

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Written Tests: Yes  
Oral Tests:  
Demonstration: Yes  
Observation:  
Other Type of Competency Testing Used:

## Maintenance

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Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures): 24-Apr-2004

Equipment Inspection Date (The date of the most recent equipment inspection or test): 18-Apr-2004

Equipment Tested (Equipment most recently inspected or tested): Chlorination Interlock

## Management of Change

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Change Management Date (The date of the most recent change that triggered management of change procedures): 08-Oct-2003

Change Management Revision Date (The date of the most recent review or revision of management of change procedures): 31-Oct-2000

## Pre-Startup Review

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Pre-Startup Review Date (The date of the most recent pre-startup review): 30-Sep-2003

## Compliance Audits

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Compliance Audit Date (The date of the most recent compliance audit): 01-Sep-2000

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit): 31-Dec-2003

## Incident Investigation

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Incident Investigation Date (The date of the most recent incident investigation (if any)): 25-Sep-2003

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation): 30-Oct-2003

## Employee Participation Plans

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Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans): 28-May-2002

## Hot Work Permit Procedures

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Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures): 01-Feb-1999

## Contractor Safety Procedures

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Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures): 31-Oct-1998

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance): 01-Mar-1999

## Confidential Business Information

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CBI Claimed:

## Section 8. Program Level 2

No records found.

## Section 9. Emergency Response

### Written Emergency Response (ER) Plan

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Community Plan (Is facility included in written community emergency response plan?): Yes

Facility Plan (Does facility have its own written emergency response plan?): Yes

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?): Yes

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?): Yes

Healthcare (Does facility's ER plan include information on emergency health care?): Yes

### Emergency Response Review

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Review Date (Date of most recent review or update of facility's ER plan): 28-Apr-1999

### Emergency Response Training

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Training Date (Date of most recent review or update of facility's employees): 29-Oct-2003

### Local Agency

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Agency Name (Name of local agency with which the facility ER plan or response activities are coordinated): Kanawha Putnam EPC

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated): (304) 744-1838

### Subject to

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OSHA Regulations at 29 CFR 1910.38: Yes

OSHA Regulations at 29 CFR 1910.120: Yes

Clean Water Regulations at 40 CFR 112: Yes

RCRA Regulations at CFR 264, 265, and 279.52: Yes

OPA 90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, or 30 CFR 254:

State EPCRA Rules or Laws: Yes

Other (Specify):

## Executive Summary

### ACCIDENTAL RELEASE AND EMERGENCY RESPONSE POLICIES

At Clearon Corporation's South Charleston, WV Manufacturing Plant, we are committed to operating and maintaining all of our processes (especially those using hazardous substances) in a safe and responsible manner. We use a combination of accidental release prevention programs and emergency response planning programs to help ensure the safety of our employees and the public as well as protection of the environment. This document provides a brief overview of the comprehensive risk management activities that we have designed and implemented, including:

- \* A description of our facility and use of substances regulated by EPA's RMP regulation
- \* A summary of results from our assessment of the potential offsite consequences from accidental chemical releases
- \* An overview of our accidental release prevention programs
- \* An overview of planned improvements at the facility to help prevent accidental chemical releases from occurring and adversely affecting our employees, the public, and the environment
- \* The certifications that EPA's RMP rule requires us to provide
- \* The detailed information (called data elements) about our risk management program

### STATIONARY SOURCE AND REGULATED SUBSTANCES

Our facility produces chlorinated dry bleaches which are used extensively as sanitizers and disinfectants in detergents, cleansers, water treatment, and swimming pool and spa water treatment. The manufacture of our products utilizes a variety of chemicals and processing operations. One of our primary raw materials is chlorine, which EPA has identified as having the potential to cause significant offsite consequences in the event of a substantial accidental release. Chlorine is the only chemical at the Clearon Corp. Manufacturing Plant which is subject to the EPA RMP rule. Chlorine is received in railroad tankcars and the maximum inventory at the site is 720,000 pounds. The inventory of chlorine is kept as low as practicable and the normal inventory is much less than the maximum level which is only reached during unusual supply situations.

### KEY OFFSITE CONSEQUENCE ANALYSIS SCENARIOS

EPA's RMP rule requires that we provide information about the worst-case release scenario and alternative release scenario for our facility. The following are brief summaries of these scenarios, including information about the key administrative controls and mitigation measures to limit the exposure distances for each scenario:

#### Worst-case release scenario:

Our worst-case accident scenario involving chlorine would occur in the highly improbable event that the walls of a full 90-ton railroad tankcar catastrophically fail, releasing the entire contents within 10 minutes. According to EPA's OCA Guidance Reference Table, the distance to the endpoint of the cloud is 14 miles. Administrative controls and mitigation measures in place to limit the distance include the following:

- \* Water curtain sprays and stationary water monitors can be used to slow the vaporization of a liquid chlorine spill.

#### Alternate release scenario:

Our alternate release accident scenario involving chlorine would involve a puncture or other failure in a steel reinforced hose used to hook to the chlorine railcar for unloading purposes with the entire 250 pound liquid chlorine contents of the unloading piping being released in 10 minutes. According to EPA's OCA Guidance Reference Table, the distance to the endpoint of the cloud is 0.1 miles. Administrative controls and mitigation measures in place to limit the distance include the following:

- \* Only chlorine cars equipped with excess flow valves that automatically shut down the flow of chlorine in the event of a rapid release are used at the plant.
- \* Water curtain sprays and stationary water monitors can be used to slow the vaporization of a liquid chlorine spill.

We are using this information to help us ensure that our emergency response plan and the community emergency response plan address all reasonable contingency cases.

### GENERAL ACCIDENTAL RELEASE PREVENTION PROGRAM AND CHEMICAL-SPECIFIC PREVENTION STEPS

We maintain a number of programs to help prevent accidental releases and ensure safe operation. The plant has a Process Safety Management/Risk Management Planning organization with management systems in place to ensure that all elements of the OSHA PSM and EPA RMP regulations are followed. All new facilities are subject to thorough hazard reviews during design, construction and startup utilizing a program called "Safety in Engineering, Technology, Construction, and Operations" (SETCO). This program is intended to eliminate or mitigate any possible releases of hazardous chemicals in the workplace or environment. The entire chlorine process was studied during a comprehensive Process Hazard Analysis (PHA) led by one of the leading U.S. process safety consulting companies in 1997. All improvement recommendations from that study have been or are being addressed.

As part of our prevention efforts, we have implemented the following chlorine-specific prevention steps to address the scenarios given above.

Worst-case release scenario:

- \* Movement of chlorine cars within the facility is highly controlled by both plant personnel and railroad personnel.
- \* The chlorine unloading station is isolated from other operations, thereby reducing exposure to fire or accidents. Cars positioned at the unloading station are protected by derail switches and monitored by video surveillance cameras.

Alternate release scenario:

- \* The chlorine unloading area is monitored by video surveillance cameras, periodic personnel inspections, and equipped with a number of highly sensitive chlorine detection instruments with alarms.
- \* A computerized operating system automatically monitors the chlorine system at all times.
- \* The chlorine unloading system is equipped with automatic shutoff valves that can be activated from three separate locations.
- \* The system is equipped with pressure relief valves, which will vent chlorine to a scrubber in the event of an overpressurization.

#### FIVE-YEAR ACCIDENT HISTORY

We have not had an accident involving chlorine that caused deaths, injuries, property or environmental damage, evacuations, or sheltering in place.

#### EMERGENCY RESPONSE PROGRAM

We maintain an integrated contingency plan, which consolidates all of the various federal, state, and local regulatory requirements for emergency response planning. Our plant has designated and specially-trained emergency response teams on the site at all times. Our program provides the essential planning and training for effectively protecting workers, the public, and the environment during emergency situations. Furthermore, we coordinate our plan with the community emergency response plan.

#### PLANNED CHANGES TO IMPROVE SAFETY

A large number of recommendations to improve the prevention or response to accidental chemical releases were proposed in the extensive Process Hazards Analysis (PHA) mentioned above.